

REMARKS

Claims 1 - 20 remain active in this application. Claims 1, 11 and 13 have been amended principally to improve form and idiomatic language usage. Support for the amendments of the claims is found throughout the application, particularly in Figures 3 and 6 and the description on page 9. No new matter has been introduced into the application. The indication of allowability of the subject matter of claim 6 is noted with appreciation.

Claims 1 - 5, 7, 9, 10, 12, 15, 18 and 20 have been rejected under 35 U.S.C. §102 as being anticipated by Crane, Jr., et al. (hereinafter Crane); and claims 8, 11, 13, 14, 16, 17 and 19 have been rejected under 35 U.S.C. §103 as being unpatentable over crane in view of Fujiwara et al. These grounds of rejection are respectfully traversed.

The invention is directed to the removal of static electricity from the finger of a user prior to placement of the finger on a fingerprint-reading apparatus (which may be damaged or perform incorrectly if static electricity is coupled thereto) in the course of a natural user action for gaining access to the fingerprint-reading apparatus (e.g. exposing the fingerprint-reading apparatus for use by moving another structure such as a protective cover) while protecting the fingerprint-reading apparatus from contamination and mechanical damage when not directly in use. That is, a cover is provided for protection of the fingerprint-reading apparatus and static electricity is discharged from the finger of a user (through the cover and/or a conductive plate adjacent the cover) during the natural action of opening the cover for access to the fingerprint-reading sensor. Thus, protection is provided for the sensor while any static electricity is discharged well before the user can contact the sensor.

Crane teaches a package structure for a semiconductor die, possibly a fingerprint reader, which is open to the environment. The cover 400 has a aperture 410 which need not be removed or opened for access to the sensor (see, especially, column 6, lines 8 - 12). Electrostatic discharge "*shielding*" may be provided "*either internal or external to the housing*" and a ground or power plane may be provided "*within the housing*" (column 4, lines 21 - 23 - emphasis added). The apertured cover may also be conductive for discharging static electricity before placing the finger on the sensor (column 7, lines 40 - 45) but does not reliably do so since the sensor may possibly be reached through the apertured cover without touching the cover itself (particularly since the aperture 410 should provide sufficient space for accepting the user's finger without interference with the fingerprint to be read and at least a portion of the user's finger may touch the fingerprint sensor 100 prior to touching the apertured cover 410) while no protection is provided to the sensor when the sensor is not directly in use. In direct contrast thereto, protection from mechanical damage and contamination is provided by the invention while assuring that static electricity will be discharge from the user's finger *prior to the fingerprint-reading apparatus being even accessible to the user*. Neither of these meritorious effects are provided or even suggested in Crane.

Moreover, it is a stated objective of the invention of Crane to provide a "semiconductor package having an *open* cavity that *exposes a semiconductor die held in the cavity to the environment*" (column 2, lines 22 - 26 and lines 28 - 30 - emphasis added); a function which is repeatedly mentioned throughout Crane. Therefore, Crane does not provide a cover which is opened for access to the fingerprint-reading apparatus or provide protection thereto when the fingerprint-

reading apparatus is not directly in use and does not *reliably* provide for discharge of static electricity in a manner so natural and lacking in any requirement for conscious action that the user may be unaware of doing so as well as reliably discharging static electricity *before* the user *has* access to the sensor. See page 9, lines 21 - 25 of the present specification. Therefore, Crane does not anticipate any claim in the application and the Examiner has not addressed the claim recitations supporting these functions; thus failing to make a *prima facie* demonstration of any claim.

Furthermore, Crane does not provide evidence of a level of ordinary skill in the art which would support a conclusion of obviousness since Crane does not lead to an expectation of success in achieving these meritorious functions of the invention or even recognize the problem of a *lack of reliability* in removing electrostatic charge from the finger of a user presented by the structure disclosed. Moreover, any modification of Crane which would answer the recitations of the claims would be improper since a principal objective of Crane (e.g. providing an open semiconductor package) would be necessarily lost by the provision of a cover on either the sensor or the terminal which limited access to the sensor. Further, the structures shown in Crane and Fujiwara et al. relate to the *internal* structure of the fingerprint sensor while the present invention achieves the meritorious effect of reliably assuring electrostatic discharge of the user's finger *prior* to contact with the finger-print sensor through *external* structure which limits access to the fingerprint sensor, contrary to the explicitly recited intended function of Crane and Fujiwara et al. and which cannot be achieved through *internal* structure of the sensor. See *In re Gordon*, 221 USPQ 1125 (Fed. Circ., 1984). In particular, the teachings and/or suggestions of

Fujiwara et al. are deficient to answer the recitations of the claims in this regard even if modification of Crane in accordance with Fujiwara et al. were proper.

Specifically, Fujiwara et al. is not seen to contain any teaching or suggestion relevant to the discharge of static electricity (and the Examiner does not assert that any teachings or suggestions relevant to that feature of the invention or the deficiency of Crane to answer the same) but, rather, is directed to the provision of a surface which will enhance optical contrast of an image of a finger surface in contact therewith. The Examiner admits that Crane does not teach use of a conductive resin and relies on Fujiwara et al for such a teaching. However, the passage of Fujiwara et al. which the Examiner relies upon contains no reference to any *electrically conductive* properties of a resin used in the optical element and the alternative material, glass, mentioned in that passage is clearly an insulator. Therefore, it is not clear what, if any, purpose the property of electrical conductivity could serve in the context of the optical element of Fujiwara et al. Therefore, it is respectfully submitted that Fujiwara et al. does not, in fact, contain the teachings or suggestions that the Examiner attributes to it and certainly cannot provide evidence of a level of ordinary skill in the art which would support a conclusion of obviousness as to use of a conductive resin, much less mitigate the other deficiencies of Crane, discussed above.

In summary, all claims in the application other than claim 1 explicitly recite discharge of static electricity by some *manipulation* of a cover over the fingerprint-reading apparatus and claim 1 recites that static electricity is discharged prior to placement of a finger on the fingerprint-reading apparatus and *while obtaining access thereto*. These basic distinguishing features of the invention which support its meritorious

functions are not remotely taught or suggested by Crane and/or Fujiwara et al. Crane cannot be properly modified in accordance with Fujiwara et al. and, even if proper, the combination of teachings and suggestions contained therein do not answer the claim recitations. Further, Crane and Fujiwara et al., even if properly combinable, do not provide the meritorious functions of the invention by discharging static electricity with increased reliability and prior to the user being able to access the fingerprint-reading apparatus and through a natural motion requiring no conscious act for discharge of static electricity and consistent with providing protection of the fingerprint-reading apparatus from contamination and damage.

Accordingly, it is respectfully submitted that the Examiner has not made a *prima facie* demonstration of the propriety of either of the asserted grounds of rejection and the rejections are, in fact, in error and unsupported by the references relied upon by the Examiner. The references relied upon by the Examiner do not answer the recitations of the claims under 35 U.S.C. §102 or §103 and do not provide evidence of a level of ordinary skill in the art sufficient to support a conclusion of obviousness as to any recited feature not answered by the teachings thereof, taken singly or in combination. Therefore, it is respectfully submitted that the asserted grounds of rejection are clearly in error and reconsideration and withdrawal of the grounds of rejection of record is respectfully requested.

Since all rejections, objections and requirements contained in the outstanding official action have been fully answered and shown to be in error and/or inapplicable to the present claims, it is respectfully submitted that reconsideration is now in order under the provisions of 37 C.F.R. §1.111(b) and such reconsideration is respectfully requested. Upon



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reconsideration, it is also respectfully submitted that this application is in condition for allowance and such action is therefore respectfully requested.

If an extension of time is required for this response to be considered as being timely filed, a conditional petition is hereby made for such extension of time. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041 (Whitham, Curtis & Christofferson).

Respectfully submitted,

Marshall M. Curtis
Reg. No. 33,138

Whitham, Curtis & Christofferson, P. C.
11491 Sunset Hills Road, Suite 340
Reston, Virginia 20190

Customer Number: 30743
(703) 787-9400

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Technology Center 2600